



DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC ECONOMY.

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H. HURLBUT, EDITOR.

[For Terms see last page.]

We welcome to our columns in this number three new correspondents from the fertile west. Thus far that portion of the state has not been sufficiently represented, may we not say, has not done its proportionate share of duty, in supplying the pages of their agricultural journal.

To farmers of every section of the state, we say, lend us your aid, to render the Farmer precisely adapted to the wants, and a true exponent of the agricultural experience of Michigan. It rests upon you, to make the publication increasingly useful, and with your assistance freely furnished, we design such enlargement and improvement as shall make it most desirable to you, whether profitable to the publisher or not.

N. B. Send communications early in the month, for the month ensuing.

The Wheat Crop.

In all parts of the State from which information has reached us, the prospects of this great staple are very encouraging. The promise is generally considered even better than that of last year, and that was above the average. There has been, as usual, sudden freezing and thawing during the winter past, with, at times, little or no snow to protect the crop. But, as commonly happens in our favored State, these circumstances, so injurious elsewhere, seem to have produced no unfavorable effect.

We should be glad if the letters which we are daily receiving from different parts of the State,

each contained statements of the condition of the crops in that vicinity.

Wheat Crop of 1845.

The report of the Commissioner of Patents, puts the wheat crop of Michigan for 1845 at 7,061,000 bushels—that of 1844 was given at 4,237,000. We think the estimate of increase low enough.

By the statistical table from which this estimate is taken, Michigan ranks as the sixth state in the Union in the production of this staple—the only states surpassing her being New York, Pennsylvania, Virginia, Tennessee and Ohio.

It is proper to mention that these statements are, not, in general, to be regarded as partaking of the accuracy of a census, but are *estimates* derived from the most reliable sources within reach, viz: the judgment of men in the different districts of the country, who are supposed to be most conversant with the subject. In some states, however, the Legislature took care to provide for adding agricultural statistics to the census, and in such, of course, the returns are authentic.

The English Corn Laws.

The bill relative to the corn laws, now pending in the British Parliament, proposes to reduce the duty on wheat which now ranges from 18s to 20s sterling per quarter, (8 bushels,) so as to range from 4s to 10s; flour in the same proportion.—Other articles of provisions are proposed to be admitted, likewise, at greatly reduced rates, or entirely free. At the latest advices, the passage of the bill was considered probable, in which event the prices of farm products in this country, would, of course, be favorably affected.

For the Michigan Farmer.

**Killing Canada Thistles--Selection
of Seed Corn--Directions for Bud-
ding.**

MR. HURLBUT:—

I hardly dare express all I think and feel respecting your excellent little sheet. I will say, however, that I esteem it truly excellent, and as a medium of communication and interchange of thoughts and sentiments among farmers, and as a source of useful information, invaluable. In making you a remittance of \$1 for two copies of the work, I feel a strong inclination to make an attempt to redeem my reputation from the imputation of being "a drone in the hive of nature," by contributing my mite. In your Sept. No. '45 is contained a method—from the Cultivator—of destroying Canada Thistles by deep and frequent plowing, &c. I find no fault with the plan proposed; but as it is one that will not be likely to be generally adopted by our farmers, particularly in cases of small patches, and indeed would be attended with great inconvenience in such cases; and as I deem it a matter of certainty that we of Michigan have sooner or later got to encounter this hateful enemy, I will give you my practice, premising that the philosophy in the case is, that no root can long sustain the constant and vigilant destruction of its top or head. I have probably—to speak within bounds—destroyed 100 patches of this pest in the course of my life, with a small machine, which every farmer is supposed to be furnished with without expense, to wit—the thumb and finger. The *modus operandi* is as simple as the machine; pull them up with as much root as possible, as often as they are sufficiently grown to enable one to hold on to them; and the third year you will have very few to pull.

I feel disposed to say a few words on another subject, which may, perhaps, be of some utility to your readers. And as old and unlearned men often find their most ready means of conveying or expressing a moral, philosophical, or other principle, to be, a relation of their own experience, you will please allow me to indulge the same egotism as before. The matter, or principle to which I allude, is the importance of selecting the best kinds of seed corn. The last spring, having no other seed corn than the kind we had used for two years, we thought best to get a new kind. We obtained a small quantity with which we planted about three acres, which had been well manured, and was in all respects in an excellent condition for a crop. On the east of the same field, which was by no means in as good condition, we planted at the same time our old kind. While growing, as was natural to expect, the new kind was vastly the largest, and from appearances, as well as other circumstances, we anticipated about double the crop from the new kind, to that of the old.—Judge of our surprise when, on husking, we obtained, as near as we could judge, about 40 bushels to the acre of each kind, sustaining a loss of at least 100 bushels on three acres by the attempt to improve our seed corn.

While having in hand the attempt to communicate something for the consideration, and haply for the small benefit of yourself and readers, I will undertake a few comments on an article from the New American Gardener, contained in your

June No. '45, headed "Inoculation or Budding,"—claiming still the same indulgence in the matter of egotism. I shall attempt no description of methods, referring those who wish to learn, to some of the thousand and one works extant on pomology, fruit, and fruit trees, &c. &c., or more particularly to an opportunity of looking on and seeing the operation performed, which is, in my opinion, decidedly the best method of learning.—As to methods, I esteem all but the one commonly called shield budding as little better than "learning's luxury or idleness;" holding, nevertheless, the general principle of inoculation in very high estimation, and for small trees far preferable to grafting, for one among other reasons, that if your first attempt fails, if early in the season, you may repeat, a second, third, and even fourth time the same season. As to the matter of setting buds without extracting the wood, as recommended by Judge Buell, according to the article I have alluded to, I am satisfied from experience that, as a general practice, it is just as well, and in some cases essentially preferable to the taking out of the wood, as for instance, in the early part of the season, while the bark of the young shoot, from which the bud is taken, is very tender. But in case of inoculating small stocks, if the wood is not taken out, the inner side of your bud being flat, it is easy to see that both sides cannot touch the stock, and consequently cannot adhere. As to making the incision to receive the bud, I greatly prefer—to cutting directly across the stock—making the incision circular or sloping downwards. As to the matter of winding, our authors are quite too scientific in talking to us backwoodsmen of "bass matting." Woolen yarn answers my purpose perfectly well, and common cotton wrapping twine answers very well. A very convenient method to save tying your yarn, is to make a slash downward in the stock above your bud, and draw the end into it, having taken care to fasten the first end in winding. The proper method of keeping the scions when you have to obtain them abroad, is to wrap them in a linen cloth of liberal dimensions, and keep it wet, in which case you can preserve them in good condition for three weeks. I have buds in my nursery now alive and doing well, set last summer from scions which had been four weeks cut.

With a few remarks on the best seasons for inoculating, and the proper treatment after it is ascertained that your bud lives, will close my already lengthy communication. I consider the best season for inoculating to be from such time in June as the buds arrive at sufficient perfection, to the tenth, middle, or twentieth of July, according as the season may be wet or dry. The next best season, for all kinds of fruit except Cherries, is, from about the 10th of August to the 10th, 15th, or 20th of September, according as the trees may continue thrifty. During the intermediate season the buds will generally start and grow, but not having obtained sufficient maturity, are very liable to be killed during the winter. In case of early inoculating, the buds should be narrowly watched, and in from 6 to 8—10 or 12 days, according as the weather and other circumstances may rule, you will be able to decide whether your bud lives or not; in case it lives, head down your stock, i. e. take off the top, not too close at first. Be not too

much in a hurry to remove your winding, as many buds are lost by so doing. In case of late budding, the buds remain dormant during winter, and if found alive in early spring, head down the stocks, except peach trees, which should not be headed down too early; observing the same caution also in spring as given above, not to head too close to the bud at first. Many other things might be said that would doubtless be acceptable to new beginners in this business, but I will tax your patience, and that of your readers no further.

Your most ob't,
ST. JOSEPH, Mich.

E. M.

Saving Fruit from Frost.

Below we present to our readers another suggestion that to us is new, for accomplishing this most desirable object. So simple and so reasonable is it, that the wonder is, it has not been thought of before. It costs absolutely no labor—for all that is done, is desirable on other accounts.—Should this, either alone, or in connection with other expedients, be successful in warding off this almost sole difficulty in the way of the fruit-grower here, the benefit will be great indeed.

For the Michigan Farmer.

MR. HURLBUT—I notice in the April No. of the Michigan Farmer some “suggestions for preventing injury to fruit by late spring frosts.” I have successfully practiced the following method. About the time the tree is in bloom, or very little before, I deposit in a heap, say, half a cart load of coarse barn yard manure under each bearing tree: let the manure be such as you would select for making a hot bed, or even coarser, and during the process of decomposition the evaporation will protect the fruit. Place the heap near the trunk of the tree on the north side, as what little air there may be will come from or near that cold point. On the night of the 7th of May last, (by reference to my journal,) I find we had a hard frost, which destroyed the fruit; the same was the case on the night of the 20th of May, 1844, at which times I was fully protected as above, though I may add that a great portion of all my fruit was destroyed by the wind and hail on the evening of the 24th of April, last year, nearly a month prior to the frost. But some trees, sheltered from the storm, produced abundantly, notwithstanding the frost.

The old New England weather we had in December seems to have destroyed the peaches, and perhaps some other fruit. We insist, however, on a crop of apples, by affording them the above protection. Try it.

Respectfully, &c.,

L. A. LELAND.

Colon, St. Joseph Co., Apr. 12, 1846.

Wheat and Clover.

The best and most successful way of obtaining good wheat crops, is to sow the grain in broken-up clover land; but in order to grow it on land which, from its friability, appears not to be at all adapted for wheat, the best way is to sow the grain after one single plowing. It not unfre-

quently happens that the produce then yielded infinitely surpasses that of crops raised on fallow ground, and it is said to be less exposed to smut and other diseases. But these advantages will not be obtained unless the clover has been thick, vigorous and unmixed with weeds; the second cutting taken sufficiently early to admit of the shoots acquiring a height of eight or ten inches; and lastly, the whole of this plowed in without having been pastured.

General experience tends to prove that it is highly injudicious to sow wheat upon its own stubble.

Thaer.

From the North British Review

Rotation of Crops.

It is better to prevent the special exhaustion of the soil than to cure it. It is often difficult to discover what the land really requires, and, therefore, to cure the evil when it exists. The only method of preventing it with which we are yet acquainted, is by the introduction of a skillful rotation or alternation of unlike crops. In adopting such a rotation, we only copy from nature. In the wide forest, many generations of broad-leaved trees live and die, and succeed each other; but the time comes at last when a general pestilence seems to assail them all; their tops droop and wither, their branches fall off, their trunks rot. They die out, and a narrow-leaved race succeeds them. This race again has its life, of centuries perhaps; but death seizes it too, and the expanded leaf of the Beech, the Ash, and the Oak, again cheer the eye—playing with the passing zephyrs and glittering in the sun. So in the broad meadow, the old pasture changes, and new races of humble Grasses succeed each other as the fields increase in age. The alternation of crops, therefore, asserts to itself something of the dignity of a natural law, and man is evidently in the right course when he imitates nature in a procedure like this. But upon what do its good effects depend? Why do the broad leaves alternate with the narrow in the ancient forest? Why do the Grasses change in the old meadow? Why does the farmer obtain a larger produce, and for a greater number of years, by growing unlike crops alternately, than by continuing year after year to grow the same? The reason is not merely that one crop carries off more, and another crop less, of all those things which all our crops derive from the soil, but that one crop carries off more of one thing, another crop more of another. The grain carries off phosphorus, the straw silica, the bulb alkaline matter.—After, perhaps, 15 or 20 successive crops of the same kind, the surface soil through which the roots are spread becomes so poor in those substances which the crop especially requires, that the plant cannot obtain from it a sufficient supply to nourish and bring to maturity the full grown plant, within the time allotted to it in our climate for its natural growth. The roots do their best; they collect as diligently as they can, but winter comes on, and the growth ends before the plant is fully matured. In the case of corn, [grain] the first effect of a scarcity, say of phosphoric acid, is to make the ear smaller and the number of grains less; the next to continue the growth into the winter, and only when a very fine season occurs to ripen the ear at all. But suppose we alternate the corn

crop, which in its grain carries off phosphoric acid, with a hay crop which requires much silica, or a root crop to which much alkaline matter is necessary—then the one crop would live upon and remove what the other had left in greater abundance. Instead of robbing the soil every year of the same substances, we should be exhausting it more equably of all, and we should be able, for double the time at least, to crop it without the risk of its ceasing entirely to give us a profitable return. We should gradually work up also every available substance in the soil, whether such as are naturally present in it, or such as we have ourselves added in the form of manure. What is true of the simple alternation of a corn with a green crop, is more true still of a longer and more complicated rotation. The greater the variety of crops we grow, and the longer the interval between the successive crops of the same kind, the more perfectly do we avail ourselves of the benefits which an obedience to the suggestions of this principle is fitted to confer upon us. No rotation, it is true, however skillful, will alone prevent the land from becoming ultimately exhausted. Nothing but regular and generous manuring will do this, unless there be, in springs from beneath, or in the decaying fragments of rock mixed with the soil, or in substances brought down from higher grounds, or in the nature of the rains that fall upon the land, some perennial source of those substances which the crops always carry off from the soil. But in a skillful rotation there is this virtue, that land which is subjected to it cannot be ruined in so short a time.

Implements that every Farmer wants.

In a country where labor is dear, and produce cheap, every expedient by which the former may be saved, or be more advantageously bestowed, is valuable. Hence arises the importance to the farmer of procuring such implements as will enable him to do his work well and expeditiously. Some of these will be named, which, however obvious their utility, have as yet attained but a very limited introduction among us.

1. *The drill-barrow* ranks high among this class of inventions, especially for the sowing of ruta bagas, carrots &c. By it, the fatiguing labor of a day may be accomplished in a couple of hours. The seed is more evenly distributed, and the labor is light. The same implement is sometimes employed for planting corn, dropping the kernels at any assigned distance apart, and going over five acres in a day.

2. *The Cultivator* is another instrument as useful as it is rare. Its use dispenses in a great degree with the labor of the hoe, leaving it indeed scarcey any thing to perform when the rows are straight. It is sometimes formed to open and contract, so as to be accommodated to the distance between the rows, and is especially useful where long manure has been plowed under, the shallow culture leaving it in the ground undisturbed.

3. *The Roller*. Seeds of any kind are greatly benefitted by having the earth pressed around them.

4. *Harrows of improved construction*, to take the place on well subdued land, of the common triangular harrow. By them, the soil is pulverized

and seeds covered more thoroughly and expeditiously.

5. *The Horse Rake* by which a man and boy will rake as much as half a dozen hands with the common hand rake.

These are some of the most common of the improved implements in use among the favored few, which are worthy of more general introduction. But the difficulty in procuring many of them is as yet so great, as to prevent most, who might wish, from obtaining them. We need in the State an *Agricultural Ware-house*, such as is found in the Eastern States.

Which are the most profitable, Sheep or Cows?

TO THE EDITOR OF THE MAINE FARMER:—

Having frequently put the above question to my brother farmers, and gaining no satisfactory answer, and likewise knowing that many run into extravagance in making their statements respecting it, I have endeavored (although I do not consider myself a farmer,) for two years past, to make a careful estimate of the income of both. In 1844 I kept on my farm where I live, four cows and three heifers, and from the milk, made as follows:

460 lbs. butter, sold at 13½ cts. per lb.	\$62 10
310 " cheese, " 6½ " "	19 37½
150 " " for family use, worth	9 37½
150 " butter, " " " "	20 25
200 lbs. pork, sold at 4½ cts. per lb.	9 00
One calf, worth	8 00
	8128 10

Expense of marketing,	\$2 00
Female labor six weeks,	4 50
Board of the same	4 50
	117 10
Net income,	16 72

\$100 38

Allowing ten sheep to a cow, which is the general opinion of farmers, I deduct the income of one cow, \$16.72.

I also kept fifty-nine sheep, which sheared 173 pounds, sold at 37½ cents per lb.

19 lambs worth \$1 apiece,	\$ 9 00
173 pounds wool,	64 87½

Expense of marking and shearing,	\$83 87½
Net income,	3 00

Net income,	\$80 87½
Cows excel the sheep 19,05½.	

It will be seen that I raised but few lambs according to the number of my sheep, owing to their extreme youth. Respecting the calves, I usually give them away as soon as the milk becomes fit for use.

Year '45 kept five cows and two heifers.	
312½ lbs. butter, sold at 1 shilling per lb.	\$52 08
22 " " " in June, at 13 " "	2 86
575 " cheese, " when green, 6½ " "	35 93½
130 " " used in family, " " "	8 12½
150 " butter, " " " 1s "	25 00
200 " pork, sold at 6 cents "	12 00

	\$136 00½
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Female labor six weeks,	\$4 02
Board of the same,	4 50
Marketing,	2 50
<hr/>	
Net income,	\$124 97 ¹
I kept 70 sheep which sheared 210 pounds of wool, worth 33 cents per lb.	
34 lambs, worth	\$34 00
210 lbs. wool, worth	69 30
<hr/>	
Expense of marking and shearing,	\$103 30
	3 50
<hr/>	

Expense of marking and shearing,

Net income,

Leaving in favor of the cows, \$25,17¹.

I consider the milk and cream used in my family in the time, richly repaid us for milking. I think any farmer will readily perceive that I have not made too high an estimate in the pork, to say the least. After paying out the above small amount for labor, my wife has succeeded in managing the dairy alone.

A. L. BARTON.

Melons and their malady.

For the Michigan Farmer.

Mr. HURLBUT: As it is near time for planting seeds for vines, can any of your correspondents tell me how to have melons? I have planted for a number of years, and cultivated the plants with considerable care, but seldom have the privilege of tasting a ripe melon, of which I am very fond. Now the trouble is, not to get the plants to grow, or to bear; but just before they are fit for use, they are *missing*. Now I think if every one that likes this kind of fruit, would take a little pains, (and on most of our soil but little is necessary) to plant and rear for themselves, there would be but little difficulty; but if any one can give a better plan, I, for one, shall be ready to adopt it.

T. SWAN.

We have heard of the same difficulty with which our correspondent is troubled, being met with in getting fruit. After it had safely run the gauntlet through the hazards of spring frosts, and when the proprietor's mouth was beginning to water with the near prospect of solacing his appetite with the flavor of some melting peach, or choice grafted apple, lo! he would awaken some morning to find his fruit gone.

The malady which causes the mischief, is by no means new, for we have heard of it since our boyhood. Yet we have never found it classed and designated in any pomological or horticultural work. A proper term would be, *the finger blight*. Like many other diseases that annoy the horticulturist, it is the work of insects. We should be glad to hear some further remedy suggested,

On Sowing Clover Seed.

ADVANTAGE OF HARROWING THE SEED IN.

Mr. BATEHAM: As information is desired on the subject of sowing clover seed, permit me to state the result of a small experiment made the past year.

Wishing to seed a piece of ground with clover, and knowing no better method, I prepared and sowed it with oats, and after harrowing it one way, sowed the clover seed; but not having seed enough to go over the whole field, I put on what I had, and harrowed it in. A short time afterwards I sowed the remainder of the field, and left it without harrowing. The result was, that where the seed was harrowed in, the clover took well and appeared to suffer but little from the drought, but where not harrowed, it was almost an entire failure; being evidently killed by the dry weather.

It should be mentioned that my land is what is here called 'oak openings,' a light sandy soil, not naturally very fertile. I would also observe that plaster was applied to the field immediately after sowing the clover seed; as I am inclined to think that plaster assists its germinating, though I am not sure in regard to this. Respectfully, &c.,

—Ohio Cultivator.

E. G.

We condense the following from Morrell's American Shepherd, for the benefit of those who have not yet been able to provide themselves with the book. Every farmer who owns twenty sheep, however, would find it economy to buy the work, —to the extensive wool grower, the mass of information contained in it must be invaluable. We have a few copies which we sell without recompense, in order to introduce them to more general notice. Call and examine.

Directions for the Spring Management of Sheep.

Separate the weak from the strong, and put the former upon the best pasture the farm affords, and few together. Ewes with lamb should not be kept fat, as it predisposes them to abortion: they should be maintained in what is styled "good store condition," be kept in a dry field to fold in, which should be as level as possible, that they may be less liable to be *cast*, to prevent which the shepherd should keep careful watch. After lambing, should the ewe refuse to own her offspring, she should be held and a teat placed in the mouth of the lamb. Fine sheep should be especially guarded against exposure to storm at the time of parturition. When no sheltering is provided, more vigilance is necessary, the more helpless lambs being put into a large basket, lined with hay or straw, and placed by the fire, if cold, and fed with warm milk from a bottle. Take care not to wrap the lamb with any thing that is offensive, as it is mainly by the scent that the mother recognizes her offspring. During lambing, the pasture should not be luxuriant if the ewes are in fair flesh; afterwards they may be moved to better keep. Salt moderately for a short time after sheep have been turned out to pasture, otherwise scouring will follow. Give two quarts to a hundred at that time, once a week, and increase afterwards to four quarts every fourth or fifth day, the remainder of the pasture season.

In washing, the day selected should be one of warm sunshine, if possible, and between the 10th and 25th of May. Immediately after a warm rain is best, the effect of it, being to moisten and

the dirt. Bucks, especially of the Merino breed, require an extra time to wash them, and if a little soft soap is used, the wool will be valued higher by the manufacturer. After washing, avoid, if possible, driving the sheep along a dusty road, and turn them upon a thick-covered sward, that no dirt may collect on the fleeces before shearing.—If the weather should be sunny, let from a week to ten days elapse between washing and shearing; if cool and cloudy, a longer time. The object of the delay is to allow time for the yolk or oil to reappear, and confer softness and brilliancy on the wool. While the shearing is going on, and subsequently, the weather cannot be too warm.—Hence it is safest in this latitude not to begin shearing before the first of June. Should a cold rain occur during the process, those that have been shorn should be put under cover without delay, otherwise death to some will follow. Humanity, as well as policy requires this. The following instructions relative to shearing are given entire:

"There are shearers, but they are few, who can do their work quickly and yet do it well; but these have acquired the art correctly in the beginning, and have wisely adhered to its rules through a long experience. But a great majority have been spoiled when learning the rudiments, by the very class of farmers alluded to. Thus even shearers who have had the benefit of some correct teaching, are made reckless performers by parsimonious notions on the part of those who have employed them.

Bad habits are very easily acquired by a shearer, as the writer has had frequent opportunities of observing in those who have served him in this capacity for successive years; but it has been in the employ of these shear-by-the-head or job flock-masters. Here is the root of the evil—urging the shearers to do more than they can do well, and thereby confirming the old but truthful adage, "haste makes waste." The axe must be laid at the root of this evil at once, or good workmen will continue to be, as now, few and far between. The wool-grower must cease to entertain the false notion that by hiring his shearing done by the head or job, he is the gainer, for the very reverse is the fact in nine tenths of such instances, owing to the slovenly and half-way execution which follows, the sheep carrying away wool enough to double pay the ordinary day wages. The fault, it will have been seen, lies at the door of the master, and not wholly to the shearer.

The following directions may be followed, intended for the novice:—

Supposing that the floor of the shearing-house has previously been thoroughly cleaned, the pound containing the flock littered with straw—the shearer proceeds to bring his sheep upon the floor. This he must avoid doing after a common method, which resembles, rather than anything else, the rough-and-tumble efforts of a dog dragging a woodchuck from his burrow—but after catching it, to throw his right arm around the body, grasping the brisket with his hand, then lift it, and with his left hand remove dirt or straw, if any adhere to the feet. If the sheep is filthy about the tail, or perchance any burrs are attached to the wool, at the threshold of the door, let all be cut off by a

suitable pair of shears at hand for such purposes only. Then he may place the sheep on that part of the floor assigned to him, resting on its rump, and himself in a posture, with one knee on a cushion, and the back of the animal resting against his left thigh. He grasps the shears about half way from the point to the bow, resting his thumb along the blade, which affords him better command of the points. He may then commence cutting the wool at the brisket, and, proceeding downwards, all upon the sides of the belly to the extremity of the ribs, the external sides of both thighs to the edges of the flanks; then back to the brisket, and thence upwards, shearing the wool from the breast, front, and both sides of the neck—but not yet the back of it—and also the poll or fore part, and top of the head. Now the "jacket is opened" of the sheep, and its position, and that of the shearer, is changed, by being turned flat upon its side, one knee of the shearer resting on the cushion, and his other gently pressing the fore quarter of the animal, to prevent any struggling. He then resumes cutting on the flank and rump, and thence onwards to the head. Thus one side is completed. The sheep is then turned on to the other side, in doing which great care is requisite to prevent the fleece from being torn, and the shearer acts as upon the other, which finishes. He must then take his sheep near to the door through which it is to pass out, and neatly trim the legs, and leave not a solitary lock anywhere as a harbor for ticks. It is absolutely necessary for him to remove from his stand to trim, otherwise the useless stuff from the legs becomes intermingled with the fleece wool.

In the use of the shears, let the blades be laid as flat to the skin as possible, not lower the points too much, nor cut more than from one to two inches at a clip, frequently not so much, depending on the part, and compactness of the wool."

Failure of the Wheat Crop in the Eastern States.

A correspondent of the N. E. Farmer suggests as one great cause of the failure of wheat crops in New England, and in all the older states, the clearing away of the forests, and the consequent exposure of the country to sweeping winds and a scorching sun; and hence recommends as a remedy the planting of woodlands, so as to intersperse cultivated fields and forests. The recommendation is doubtless a good one, for purposes both of utility and ornament, but we do not think the originator of it has hit upon the right cause of the failure he would remedy. If an open exposure, and the absence of woodland would be inimical to wheat culture, then no good crops could be raised on the extended prairies of the west—an inference, as every body knows, wholly opposed to fact. We of the west have as rough winds, as hot a sun and a climate of as sudden and extreme vicissitudes as the east. The important difference lies, we think, in the character of the soil, and the quantity of snow,

Horticultural Department.

Calendar for May.

BY S. B. NOBLE.

KITCHEN GARDEN.—This is an important month for the garden. Be not too hasty in putting in seeds. Better delay a few days, or even two weeks, than have them destroyed by frost. Prepare the ground well, and make your beds very little crowning. Make drills eight inches apart, and sow as follows: Lettuce, Cress, Radish, &c. to every alternate drill, fill up the vacant drills with Beets, Parsnip, Carrot, Oysters, Onions &c. The Lettuce, Cress, Radish, &c., will be fit for use, and pulled early, which will leave the ground for the other vegetables that are to stand through the season. Early this month, plant Peas, Beans, Corn, Cucumbers, Squashes, Melons for early;—sow Onion, Beets, Carrots, Parspips, Oysters &c. Sow the seeds of those vegetables that are wanted during summer at intervals through the month. About the 11th, plant pole beans in hills in the form of a circle three feet diameter, stick the poles at the time of planting and tie the tops together in the centre to prevent their blowing down.—About the 15th, sow Peppers, Egg-plants, Tomatoes and other tender plants. Secure them from frost. From the 15th to the end of the month, make another planting of Melons, Cucumbers, Squashes, Corn, Bush Beans, Peas, &c. Keep the ground free from weeds, and water if very dry. About the middle of the month, sow Medicinal and Pot herbs, such as Sage, Savory, Parsley &c. Early in this month, sow Celery. Cover lightly, water and shade if dry. Transplant from the hot-bed a few Tomatoes, Cabbages, Cauliflowers, Egg-plants, Peppers, at intervals during the month. Avoid the two extremes, if the ground is very wet, or very dry. More depends on the proper condition of the soil, than any precise time for sowing. Put in a good supply of seeds, for if the soil becomes dry and baked, the smaller seeds cannot force their way through.—If you begin to water the garden, it should be continued until rain.

FLOWER GARDEN.—Sow the hardy annual flower seeds, that were not sown last month. From the tenth to the fifteenth, sow the more tender, such as Ice-plant, white Egg-plant, &c. Biennial and perennial flower seeds may be sown in beds any time this month. Thin out, that the plants may grow stocky. Finish transplanting perennial flowering plants without delay. With a few exceptions, Annuals may be transplanted with success. Shade by sticking a shingle or board on the south side of the plant, at an angle of forty-five degrees. This permits a free circulation of air. Tie the flower stems of Tulips, Hyacinths, and other bulbs, to neat little rods. Keep all the flowering plants free from weeds. A good way to sow Annuals, is in drills, made in the form of a circle, of from 6 to 12 inches diameter: in the centre place a neat rod, to which you may tie all that need supporting.

About the 10th, plant dry Dahlia bulbs. Protect, in case of frost. Those Dahlias that have been forwarded in pots or boxes, may be put into the garden the last of the month. Water freely, if dry weather continue. Gladiolus, Amaryllis,

and other tender bulbs may now be planted in the border.

ORNAMENTAL SHRUBBERY will need pruning. Cut out all decayed and crooked branches. Tie to trellises the Honey-suckles, Matrimony vine, Clematis, Climbing Roses, &c.

GREEN HOUSE PLANTS will need attention this month. If infested with a scaly insect, wash with a sponge dipped in weak suds. If this does not destroy them, to prevent the entire destruction of the plant, head them down, and, with proper treatment, a new growth may be expected.—Prune Geraniums, Roses, and other shrubby plants. Set them in the open air as often as the weather will permit. Carnations, Auriculas, Polyanthus, and Primroses may be planted in the border of the flower garden to stand during the summer.—Hydrangeas will now begin to show their flower buds. Water freely, give plenty of air, and do not expose them to the scorching rays of the sun.—Mirtles, Oleanders, Coronillas, and other tender shrubs, may be placed in the open borders the last of this month. Cactus will begin to show their blossom buds. Tie them up to neat rods, water moderately, and you may expect fine flowers.

FRUIT YARD AND ORCHARD.—Fruit trees that were not pruned last month had better be done early this month.* Cut out decayed and crooked branches. Much may be gained in pruning by rubbing off the buds as they begin to grow, with the thumb and finger. Watch the appearance of the Caterpillar, and leave all business and exterminate every one. If a plantation of strawberries is well made early this month, some fruit may be expected. Plant the roots fifteen inches apart, each way, in good mellow soil. The Downton, Austrian Scarlet, Grove-end Scarlet, and some others succeed well in our climate.

BIGS AND WORMS.—during this month will begin their ravages. Various plans have been adopted to prevent the destruction of plants. Few succeed well; some partially. To prevent the cut-worm, take unleached ashes, and make a complete circle around the hills, an inch thick and two broad; replenish the ashes after a rain. In small gardens, let the gardener take a candle in the evening, and examine the cucumbers, &c., and he will generally find the worms at work, and they can be destroyed by hundreds. To prevent the yellow bugs, make of clapboards a box open at both ends, say six or eight inches square, and place over the hills; press the box into the ground an inch, which will in part keep off the worms.—The bugs will seldom enter the box—after all the various plans that are invented, the most effectual, and in the end the *cheapest* way, is, to plant four or five times the seed you need to make the necessary number of plants you want in the hills.—The bugs and worms seldom take all. The price of the seed bears no comparison to the risk of failure of the entire crop.

*Downing says that his experience has led him to believe that a fortnight before midsummer is by far the best season, on the whole, for pruning in the northern and middle states. He cautions against pruning when the buds are swelling, and the sap is in full flow, as the loss of sap by bleeding is injurious. Ed.

Grafting wax of excellent quality may be made by melting together 3 parts of beeswax, 3 parts of rosin and 2 of tallow.—*Downing*.

On Raising Cabbages.

AS PRACTICED IN OLD VIRGINIA.

The cabbage crop is not a very certain one in this country; but the mode of culture practiced by my father, and myself thus far, I think is undoubtedly the safest and best. Our plan is this; from the 1st to the 19th of May, we level and pulverize our ground with a hoe after plowing or spading. We then make small hills about 3 inches high, 18 inches in diameter, and 28 or 30 inches apart from centre to centre. In each hill we scatter about 10 to 20 seeds and cover three-fourths of an inch or an inch with fine earth. After they grow to the height of about two inches, we draw out all but three plants; and in case a hill should fail to grow, we take a knife and run under an isolated plant, raise it with its roots surrounded by its mother earth, and transplant the whole in the missing hill; thus never disturbing its early and tender growth. After the plants grow to six, eight or ten leaves, we conclude all out of danger from bugs and worms; we then remove the surplus plants, (leaving only one in the hill,) for table use during the summer, or feed them to the stock.

I do not now remember that a crop ever failed with us entirely; at any rate ours were invariably much superior to our neighbors who sowed the seeds in beds and transplanted in the garden in the usual way.

My conclusions why this plan succeeds better are these; when the plant is drawn from the bed and transplanted into a different piece of ground, the soil is foreign, and as with a human being in a strange and different climate, it must become acclimated, or adapt itself to the new and strange soil; besides the time of taking new root, while doing which it loses its vigor of youth and fails ever to reach its wonted size.—*Ohio Cult.*

For the Michigan Farmer.

Madder--its Cultivation.

Mr. HURLBURT:—Among the different states of the Union, none is better adapted than Michigan for the production of the necessities and comforts of life, and every article that we can produce for home consumption or for exportation, adds to our wealth. Madder is a coloring drug, that we now import in considerable quantities, and as our woolen manufactories are yearly multiplying, the demand for it will be greatly increased. Much of our soil is well adapted to its cultivation. It delights in a rich sandy loam, and may be cultivated by seeds or by offsets—will not some of our enterprising farmers try the experiment? For their benefit and instruction I extract the following from the New American Gardener by T. G. Fessenden, Boston 1832, p. 300. “This plant may be propagated either by offsets or seeds. In October the roots are taken up, the offsets carefully separated to form a new plantation, and the roots after being dried, are sold either with or without farther preparation, or ground to a coarse powder, and sprinkled with an alkaline lie. The roots lose four-fifths of their weight in drying, and the produce of an acre is about two thousand pounds of dry saleable madder.” Now, estimating the value at ten cents per pound, the proceeds of the acre of land would be two hundred dollars, which most of our farmers will think a fair compensation for land, labor &c.

N.

From the Providence Transcript.

Butter Making.

“The annexed article is from one of our most experienced and intellectual agriculturists. Of his successful practice we can attest, as we never saw finer butter, not even in Philadelphia, than we have eaten at his hospitable mansion.”

Milk Apartments &c.—The milk cellar should be deep, well ventilated, and dry; the bottom covered with stone flagging. Bricks will absorb milk, and other liquids that may fall upon them; and will soon contract mildew, the smell of which, like the odor of cheese, vegetables, fish, or foul air of any kind, will be imparted to the cream and butter. Over this cellar should stand the dairy room, with shelves to set milk upon in cool weather; the cellar is to be used during the extremes of heat and cold. The temperature of the milk apartment, if possible, should never be above 65° nor below 45°. Set kettles should not stand in the dairy-room; neither should cheese-making, nor cleansing milk-vessels be done there, but in a convenient room near by.

Cream may be kept good much longer, if it be kept in a white oak vessel, with a tight cover, and a faucet or tap near the bottom, to draw off the milk when it settles, before the customary daily stirring. The quality of the butter is much improved by this management. If the milk be not drawn off, and it be churned with the cream, the butter will be longer in coming, and it will show specks of sour curd, taste like cheese, and will soon become rancid. Butter will come quickly at all seasons of the year, if the cream be of a temperature of from 60° to 70°; to this end, use hot water in winter, and ice in summer; but never add either to the cream, in or out of the churn.

Salt.—Pure salt crystallizes into perfect cubes. All other forms of crystallization found in common salt, arise from impurities; those of a needle shape in Liverpool bag, or blown salt, indicate the presence of lime, magnesia, &c. One great cause of the failure in making good butter, may be traced to the use of impure salt. Rock salt, and the large lumps of Turk’s Island, washed, dried, and finely pulverised, are preferable to all other kinds, being highly preservative, and hardening the butter, so that it will be sooner ready to work over in warm weather. The Liverpool bag or blown salt, the Salina salt in small bags from N. York, and the fine part of every kind of imported salt, contain a great portion of impurity. Less than one ounce of pure salt, is sufficient for a pound of butter; (many put in but half an ounce).

In the manufacture of cheese, a preference is sometimes given to Liverpool bag or blown salt. This contains salts of lime and magne-

sia, which attract moisture from the air, and have the desirable effect of softening the cheese, and the pungent bitter taste which they impart to it, is an improvement, in the estimation of some.

General Remarks.—The cream should not rise more than 36 hours; it should be sweet when taken off, and sweet when churned; yet there is a degree of maturity to be acquired by keeping.

The kegs, for packing butter, should be made of white oak, bilging in the form of casks for the more perfect exclusion of air, and convenience of transportation. If the butter is not to be sent to a warm climate, or a foreign market, let the bilging kegs have movable covers, to accommodate inspection; they should be soaked in strong brine, made also of pure salt, in order that justice may be done to the purchasers in tare, and to save the butter from being spoiled for one or two inches deep all around, from its contact with dry wood. In case the wood is any thing but white oak, there is danger of its giving an unpleasant taste to the whole. For the convenience of families, the size should vary from twenty-five to fifty pounds. A keg of butter is exposed to the air for a long time, while on broach in a small family, and the bottom, in consequence, becomes rancid.

The consumer will cheerfully pay an extra price for one hundred pounds of butter, packed in four kegs instead of one. No salt should be put on the sides, bottom, or between the layers. If the kegs are made with covers, put a cloth over the top, and cover that with pure fine salt. Keep a cloth wet with strong brine over the butter, while the keg is filling, to exclude the air. The practice of washing butter is not approved of in Europe: it destroys its fragrance and sweetness by dissolving the sugar of milk, which it is said is always present in good butter. It is practiced in Holland, when the article is designed for exportation to India; then the operation is usually performed with cold strong limpid brine made of pure salt, and pure water; water that has lime in it will not answer, as the lime is readily absorbed by the butter.

To exclude the air more effectually during the process of putting down, let a little melted sweet butter be run into the cavity, where the bottom, head and staves come together, then after each layer is completed, let the dairy-woman pass her finger round so as to press the butter hard and close against the side.

LAZINESS.—Laziness grows on people; it begins in cobwebs, and ends in iron chains. The more business a man has, the more he is able to accomplish; for he learns to economise his time.—*Hale.*

New Importation of Cattle.

The Massachusetts State Agricultural Society has lately made a fresh importation of cattle from England, with the special design to improve the dairy stock. The importation consists of ten animals, five of the Ayrshire, and five of the North Devon breeds, four cows and a bull of each, the whole being selections from some of the best breeds in Scotland and the north of England.—The pedigree of each animal is given at length in the New England Farmer, from which it would appear that they are of the highest aristocratic blood. The State Society have adopted this method of improving stock, instead of the plan which has been pursued for many years, of giving premiums for the exhibition of the best native cows—a practice which, though productive of some good consequences, in a measure failed of its object, as it not unfrequently happened that a good cow, which perhaps was a chance purchase from some drove, would obtain the premium, the owner would pocket it and perhaps the next year consign the cow and her calf to the butcher—or if she were kept to breed stock from, her good qualities not having become fixed by a long course of systematic breeding, none of her stock might possess her good qualities. Thus the object of such premiums, the permanent improvement of dairy stock, was very imperfectly accomplished. The expectation is now entertained, that this choice foreign stock will lay the foundation for such improvement, as shall be lasting and profitable.

It appears to have been the opinion of the accomplished judges, who decided on the breed from which to make the importation, that the Ayrshire and North Devon are the best dairy stock, for New England—and the same would probably be the case here. These breeds are thus described:

The characteristic points of the Ayrshire cow, when Aiton wrote, were—"Head small, but rather long and tapering at the muzzle; the eye small, but smart and lively; horns small, clear and crooked, and the roots at considerable distance from each other; neck long and slender, tapering toward the head, and no loose skin below; shoulders thin; fore-quarters light; hind-quarters large; back straight; broad behind; the joints rather loose and open; carcass deep, and pelvis capacious and wide over the hips, with round fleshy buttocks; tail long and small; udder capacious, broad and square, stretching forward, and neither fleshy, low hung nor coarse; the milk-veins large and prominent, teats short, and all pointing outward; skin thin and loose; hair soft and woolly."

This is an accurate description of the Ayr-

shire stock imported some seven or eight years ago by the State Agricultural Society. The improved Ayrshire stock of the present day, which are descended from the famous *Swinley* stock, and of which the recent importation by the Society consists, differ in some respects from those above described by Aiton. The head is shorter, wider between the eyes and horns; thinner in the fore-quarter; the shoulders finer and more closely set; the limbs and body shorter, and the joints more closely and firmly set; the abdomen deeper and more prominent, and the teats hanging directly down; hair longer, though more silky, and finer in the handling—and altogether a hardier race of animals than the Ayshires of former days.

"The color," says Robertson, "is generally a brown of many hues, from dark to yellow, intermixed and mottled in many a varied form and proportion with white: almost none are of one color. In a herd of forty or fifty, there will no two of them be alike in color—in this respect exhibiting a diversity not unlike to a bed of tulips, and of as many hues and shades, in an endless variety of beauty."

The North Devon stock has long been celebrated as a breed of cattle beautiful in the highest degree. For the dairy, they cannot be considered equal to the Ayrshire, but viewing them as uniting the three qualities of working, fattening and milking, they may be considered as unrivalled. Some of the writers upon English stock, give them a high rank as milkers, and Mr. Conyers, of Capt Hill, near Epping, a district almost exclusively devoted to the purposes of the dairy, preferred the North Devons "on account of their large produce, whether in milk, butter, or by sucking."

"The North Devon oxen," says an English writer, "are unrivaled at the plow.—They have a quickness of motion which no other breed can equal, and which very few horses exceed. They have also a docility and goodness of temper, and also a stoutness and honesty at work, to which many teams of horses cannot pretend."

EFFECTS OF CROSSING ON THE CONSTITUTION.—Those classes of the human race which preserve their blood free from mixture with strangers, while they have less variety in external appearance, and perhaps less variety in the scope of mental capacity, than those who cross and re-cross at pleasure, have more endurance in action, firmer attachments to purposes, and less desultory impetuosity. This is a physical truth. The explanation of it is difficult; but it may be illustrated and comprehended in some degree by those who study the animal fabric, and who are acquainted with the laws of animal economy. In brute ani-

mals—horse, sheep, and cattle—the mixture of different races is observed to change the qualities, to improve the beauty and to enlarge the size; it diminishes the hardness and the security of the physical health. In man, the mixture of different races improves beauty, augments the volume of the bodily organs, and even perhaps expands the sphere of intellect. It diminishes the power of enduring toil, and renders the habit more susceptible to the causes of disease.—*Jackson's Economy of Animals.*

Marl, Compost, and Ag. works--Inquiries.

MR. HURLBUT.—There is a question or two, which, as I am no chemist, and but a tyro in the science of agriculture, I would like, through the medium of your paper, to have answered.

First. Will the application of bog lime, or marl be of any benefit to land, without burning? And does it contain any other ingredients, essential to the growth of vegetation, than clay and lime?

Second. How may we, as nearly as may be, obtain a universal compost, our common manures not containing all the constituents of our various kinds of grain, taken from the soil in their growth?

Lastly. Is there such a work extant as a chemistry applied to agriculture, or the principles of the science, illustrative of the constitution, and analysis of the vegetable kingdom, made practically plain and adapted to the necessities and comprehension of the great mass of agriculturists, who have neither time nor capacities for gleaning from voluminous works, a knowledge which is to them of such vast and infinite importance?

The utility of such a work must be obvious to every one, and if the field is not already occupied, it strikes me it would well repay the labors of some able and scientific chemist.

THE YOUNG FARMER, of L. P. R. Mich.
March 15, 1846.

ANSWERS.

We are glad to see inquiry on such subjects as the above, in a quarter of the State, where the present richness of the soil precludes the necessity of paying immediate attention to the preservation of fertility. It is doubtless a wise forecast to give early heed to this subject, inasmuch as it is easier and more profitable to preserve this fertility, than to restore it. We will answer the interrogatories in their order.

1. The chief components of marl are lime and clay or sand—but the proportion of these greatly vary in different specimens, and with these are commonly mixed small quantities of other substances, especially magnesia and gypsum. Marl

is useful with or without burning. In the former case, its benefits are more speedily apparent; in the latter, more durable. When the substance is abundant, it would probably be best, considering the saving of labor, to apply it to uplands in its natural state. If the quantity is limited, it will go much farther burned. In all cases where it is to be mixed with the soil of marsh meadows, whether as a top dressing after draining, or in the compost heap, it should be burned in order the more efficiently to neutralize the acids in such soils. The following on the subject is from Johnson's Encyclopedia :

"Any earthy substance, in which the proportion of calcareous matter is apparent, mixed with sand or clay, is styled, in popular language, a marl. Of this, there are 3 principal varieties : 1. clay marl ; 2. Sand marl ; 3. Slate or stoney marl.— Clay marl usually contains from 68 to 80 per cent. of clay, and from 32 to 20 of calcareous matter.— Sand marl often contains 75 per cent. of sand.

An analysis by Thaer gave in 100 parts,

Fine Sand,	36
Clay,	44
Mould,	5
Carbonate of Lime,	11
Gypsum.	1

The quantity of marl applied per acre necessarily varies with the kind of soil, and the quality of the marl; it is usual to employ it in very considerable quantities, and it is often some years before it is sufficiently incorporated with the soil to produce an evident improvement; but then that advantage is almost always, sooner or later, not only decided but permanent. The clay marls render light sandy soils more tenacious; the sandy marls materially improve the friability of the heavy clays. In many parts of Scotland, it is spread on grass lands, and suffered to remain two or three winters exposed to the frosts, before it is plowed in.

The beginning of all improvement in Germany, is, to give a dressing of marl, at the rate of 164 cubic feet per acre; by this means, land, not worth cultivation previously, yields excellent crops for 8 or 10 years; and if the straw produced during that time is carefully converted into manure, the productiveness does not materially decrease."

2. The labor necessary to form a good compost heap is greater than western farmers are willing to devote to it. Nor is this surprising. The various preliminary operations attendant on bringing to new farms, the clearing, breaking, fencing and building, fill up the year with their labor, while the fertility of the virgin soil, seems to demand no artificial aid. As the country grows older, this department of rural economy will doubtless receive the attention of the best farmers here as well as elsewhere. Meanwhile, the most that can be expected as a general thing, to keep the land in good heart, is, the careful saving and application of barn-yard manures, the plowing under of green crops, and the practice of a judicious rotation. When the time shall have arrived for attention to this subject, it will be found that our

marsh-meadows and marl beds furnish some of the best materials for composting. Added to these, animal manures, pulverized charcoal, salt, ashes, gypsum, or bones pulverized, or dissolved in sulphuric acid, will leave little to be desired.

For the information of any who may choose to try the experiment, we will, after the active season of the year shall have passed, insert some brief directions how to form a compost heap; remarking, at present, that the idea of a *universal* compost, or one adapted to all soils, no matter to what crops they may have been devoted, or what may have been their original constitution, appears visionary. Certainly, the circumstances just indicated, would make it necessary to vary the proportion of the ingredients, according as the soil might be abounding or deficient in any: and this distinction would have to be continued, according to the course of cropping to which the land might be subjected, so as to supply most of those substances, of which most should be abstracted.

3. With regard to the third inquiry, the work our correspondent appears to want is Johnston's Catechism of Agricultural Chemistry,—a little work that deserves to be owned by every farmer, and carefully studied by every farmer's son, that means to pursue the occupation of his father. Its cost, we believe, is only 20 cents.

Management of Timbered Lands.

A correspondent wishes us to insert some articles giving information relative to the clearing and cultivation of timbered land. Will some one, who has gone "through the mill," respond?

Apropos to this, we should be glad to be told by some one that knows, whether the following method of clearing would be expedient, in case the land were not wanted for cultivation for four or five years. Girdle the large trees when the sap is in full flow in the spring, and as high up as the axe will conveniently reach; four or five years afterwards, in the month of June, when trees are in full leaf, complete the clearing, by cutting the saplings and underbrush, and such girdlings, as may remain standing. Wait for a dry time and burn. It has been said that in this way, land may be cleared at one half the cost per acre, of the usual method—that the trees will so rot below the girdlings that at the end of the above mentioned time, most will have blown down,—that the limbs will be so brittle as to break to pieces in their fall, requiring no labor of the axe to fit them for burning,—that if a good time be selected, the tops, saplings, and much of the trunks of the large trees will be consumed, and that afterwards a small amount of chopping and logging suffices to do the business. Is it so?



Rust in Wheat.

The above is a representation of rust in wheat, as we find it delineated in Johnson's Encyclopedia. *a*, is a portion of wheat straw, magnified, to show the parasitic plant or fungus, which is called rust, or mildew. *b*, is a small section of the straw, much more strongly magnified. *c*, is a very highly magnified representation, showing a small part of the bottom of a pore in the straw, with some of the parasitic fungi growing upon it. Two of these are represented as seen bursting and scattering their seeds.

The exceeding minuteness of this vegetation will give an air of improbability to the description, with those who have had limited opportunities of observing the wonders of nature's works. In reality, however, it is no more surprising that vegetables should exist and mature and scatter their seeds, which are too small to exhibit any organized form to the naked eye, than it is that hundreds of animals, of new and strange forms, perfect in all their parts, but imperceptible to the naked eye, should be discovered in a single drop of marsh-water.

For the Michigan Farmer.

Breaking Up.

MR. EDITOR:—A correspondent in your last number having started the subject of breaking up new lands, one which I have not before seen treated of in your paper, allow me to follow it up by saying a few words upon one point of management which I deem not unimportant. The idea which I wish to enforce will be best illustrated by an example.

I have two neighbors, both industrious and go-ahead farmers, who were engaged last summer in holding the breaking-up plow on their respective farms. Both were anxious, of course, to make the most of the appropriate season, to prepare a large fallow for wheat, and as both were robust men, the limit to their labor was only the capacity of their teams. Both aimed to manage them in such a manner as to get as much out of them as possible, but to accomplish their object, they pursued a widely different course. One of them, (who, by the way, was always in a hurry,) would be up in the morning at peep of dawn, and out to look after his oxen to see that they did not stray off. If they were likely to wander to any distance in search of more bountiful feed, he drove them back that they might keep within convenient distance. Shortly after sunrise, he had them in the yoke, and before his plow, because, he said, the team could work better in the cool of the day. The oxen, being but half filled, after two or three hours labor, began to give signs of weakness and fatigue, and the frequent aid of the whip had to be invoked, to stimulate their lagging powers. At noon, they were too tired and hot to feed for a long time after they were unyoked, and, when they had recovered themselves far enough to regain their appetite, and partially gratify it, they

were again driven up to labor. After toiling in the same condition as in the forenoon, until sundown, they were turned out again to feed. Instead, however, of doing this, fatigue sometimes impelled them to lie down, or if hunger predominated, their time of feeding was so much taken from the hours of necessary rest.

My other neighbor let his team feed until they were well filled, which was commonly about 7 o'clock in the morning, worked them till noon, gave a shorter nooning than the other, worked in the afternoon until the sun was about an hour high, and turned out. The result was that his team having plenty of time to rest, and that when it did them most good, as well as time to eat when the appetite was keenest, sustained the labors, albeit of the heat of the day; and although they broke nearly an acre and a half daily, they came out of the breaking up season in better condition than they entered upon it.

The team of the first mentioned, meanwhile, grew poorer and slower as the season advanced, until it was a tedious task to drive them, or see them driven. By the time the season's work was over, most of them looked like used up commodities; and after all, they had not accomplished as much as the other team.

This example convinced me that nothing was gained by denying to the ox an ample time to procure sustenance, and that many mistake sadly their true interest, as well as contravene to dictates of humanity, in their anxiety to accomplish a great season's work.

The same objection applies to the unseasonable haste of some, to start their teams early in the spring, before they have got recruited, and before the grass is sufficiently grown to afford plentiful and substantial feed. Such, also, need to be re-

minded of the wholesome old adage, "Make haste slowly." Your humble Servant,
FAIR-AND-EASY.

Cooking Asparagus.

MR. EDITOR—Not having seen any recipe for cooking asparagus in the mode which I practice, and having met with very little abroad that to me has seemed fit to eat I am induced to send you an account of my manner of dressing it for the table.

To be first rate, the stalks should be grown from 4 to 6 inches from the ground, and fresh cut. Wash the stalks clean, and cut them in bits about half an inch long. If the stalks are of different sizes, cut the large ones shorter than the small ones, so as to give them an equal chance to boil and season. The cook should throw aside the stalk as soon as it begins to cut tough; that is, she is to use only the tender part, unless the asparagus is very scarce, when she can divide the tougher from the tenderer portions, and put the tougher to boil about ten minutes first. Salt the water in proportion of a table spoonful of salt to two quarts of water, which is sufficient to boil one quart of the pieces in. Have the water boiling when the asparagus is put in, and keep it boiling fast for about an hour. The best way to know when it is cooked enough, is to take up one or two pieces and taste, for it sometimes cooks quicker than at others, according as it has grown quick or slow. While it is boiling, get ready, say for a quart of the asparagus, 2 slices of bread, cut half an inch thick from a common sized wheat loaf, toasted a light brown, and a large gill of melted butter. When the asparagus is done, take it up with a skimmer, and lay it on a colander or sieve to drain, dip the slices of bread one at a time, first in the hot asparagus liquor, and then in the melted butter. Then put it in the middle of the dish that it is to be served on.—When this is done, pour the asparagus over and around the toast, and strew the rest of the butter over it as evenly as possible, when it is ready for the table. If, however, the rest of the dinner should not be ready, let the asparagus be kept hot until it is; for if the cook does not serve her asparagus hot, she will lose much of her labor and credit."—*Cultivator.*

LOCUST FAVORABLE TO GRASS.—In a communication to the Portsmouth, N. H. Journal, we find the following. Those having sandy soils will do well to consider it.

Fifty or sixty years since, a brother was possessed of a good farm in Greenland, bordering on Great Bay. On the most conspicuous part of the farm, by the shore of this bay, was a swell of land, that was always bare, and

wasting away by the winds. The whole of this swell was set out to locust trees—they thrived well, shot out, and soon became a pretty forest. They were afterward cut off for posts, and sold at Salem. They soon sprang up again, and now there remains a beautiful forest—the shrubbery done sprouting and out of the way. In making a visit recently to the farm, I took a seat for a while in this most delightful grove. What adds more to the beauty of this spot, is the very extraordinary fine and heavy crop of grass this ground now produces. At the time I was there the latter crop was fit to cut, which I suppose must overrun a ton per acre. I was informed that two crops gave three tons of the best hay.

CURING CLOVER.—Every farmer knows that there is a difficulty in curing clover for hay, without the loss of much that is valuable. If exposed to a hot sun long enough to dry the stems, the leaves and their foot stalks become crisped, so as to scatter off in the process of raking, and such as remain are much deteriorated. To prevent this, clover is sometimes raked into small cocks, as soon as wilted, and left to complete the curing, in that state.—Should a rain occur in the interval, however, injury to a greater or less extent occurs; and to guard against this, some have preferred covers of painted canvass to throw over the cocks while standing, secured from being blown off by weights at the four corners. This involves quite an expense. A method has been suggested of accomplishing the same object without expense, and with but little trouble. It is new to us, and may be so to others. We give it as a hint for experiment.

Prepare a stack bottom, raised some 18 inches from the ground, so that the air may have free access below. Take three poles, as long as the intended height of the stack, stick them in the ground at a few feet distance from each other in the middle of the stack bottom, bear the tops towards each other, & fasten them together, so that the three poles will form a pyramid. Around this, stack the clover as soon as wilted, covering over the top of the pyramid with hay to exclude the rain. As the steam rises from the half-cured clover, it will pass up the interior of the pyramid, and out through the cap or covering, and a draft will be formed from the open sides below, like that of a chimney.

WEDDING CAKE.—Flour and butter, each 3 pounds; sugar and raisins, each 3 pounds; eggs, 2 dozen; currants, 6 pounds; citron, 1 pound; brandy, 1 pound; cinnamon, nutmegs, mace, each 1 ounce; cloves, $\frac{1}{2}$ ounce. Bake thoroughly.

Infallible Recipe

*For getting rid of those troublesome things
called Fruit Trees.*

BY P. L. PHœNIX.

First in regard to getting them ; (strange that folks *will* take pains to get such things—why I've known them to pay half a dollar a piece for the nuisances !) Don't be any-wise particular to get *thrifty* trees : you will find that those which are 8 or 19 years old, and have been raised among grass and weeds, with plenty of large wounds and scars on, are de-cidedly the easiest to get rid of—and it may be (though you never thought of it, I presume) they are a cent or two the cheapest! When you come to set them out, put them if possible into some old timothy patch ; because you know it is very troublesome to plow and work among your trees : but if you shouldnt happen to have such a patch and *must* plow your ground first, don't plow deeper than three inches ; if you do, the roots will all go down out of sight into the cold poor earth, and your fruit (when you get it) will certainly be spoiled thereby. When you set them out don't *waste* any time about it ; if possible set some hired man at it—a 'Wegan or Dutchman will do—*your* time is altogether too precious in such a hurrying season for a job like that. However, set them as near as you can like a post—that is, deep and strong—the wind will not loosen them so easily. If you shouldnt happen to get your holes quite large enough for the roots, double them up—they've no business to be so long. When you fill up the holes, use your bottom soil altogether—it is handier and packs closer around the roots and bodies, and will keep them steadier. After you have got through setting, if your orchard ground were a timothy patch, well and good ; if not, you may sow oats or wheat on, and then *be sure and seed it down*, it saves so much trouble afterwards ; besides, if your trees ever happen to have leaves on them they will make excellent food for the grasshoppers after the grass is cut. Don't worry yourself any more about them, especially during the first season after setting. If they ever leave out, and you should happen that way, you might very likely find some ugly worms devouring the foliage which would certainly be a very disgusting sight, and as for killing them—ugh! horrible!—don't think of it. In the fall, when the prairie grass gets poor, turn your calves and sheep into your orchard ; they will get "an excellent bite" there—and if your trees get some good bites, no matter, it will restrain their too rampant growth, and save pruning. For *extras*, when your friends come to see you, turn their horses in, or a new milk cow ; and if they break down half a dozen and run

over the rest—why, lay it to the country !

This course infallibly succeeds the second season, if not the the first after setting. If, under these circumstances, you are not pleased with your excellent success, I will mention three things as peculiarly well calculated to console you. First, *Darn* the unlucky nurseryman you happened to buy of, with all vehemence, every time you happen to look at the trees. Secondly, Express it as your opinion as often as possible, or (what is still better,) say that you *know* this aint agoin' to be no fruit country, for you've tried it! And thirdly, if any of your neighbors happen to have any fruit, either wild or cultivated, *get as much of it as possible* ; don't be at all particular *how* you do it—only be sure and get it.—But says somebody—"Hold on ! hold on, Mister ! you don't mean me, I hope." Well I do, if that's you—now don't dodge, friend, if you do I'll shoot closer next time. If you don't like your portrait as drawn above, *mend your ways*, and when I shoot again I'll allow at least "three rows of apple trees" for you.—*Prairie Farmer.*

Extraordinary Experiment with Wheat.

The American Agricultural Association held its monthly meeting on Wednesday evening, at the rooms of the Historical Society. A large assemblage of members were present. The Hon. Luther Bradish presided.

R. L. Pell, Esq., of Pelham, Ulster Co., read a long and interesting paper on manures, composts, wheat and other cereal grain culture, potatoes, &c.

Mr. P. detailed an experiment in the cultivation of wheat which appeared to us entirely new. He said that on the 4th of October, last year, he cleared the tops from a potatoe field, burnt them and returned the ashes with the view of sowing wheat. The seed was prepared thus : soaked four hours in brine that would buoy up an egg—then scalded with boiling hot salt water mixed with pearl ashes—passed over a sieve—distributed thinly over the barn floor, and a dry compost sifted on it, composed of the following substances ; oyster shell lime, charcoal dust, oleaginous charcoal, ashes, Jersey blue sand, brown sugar, salt, Peruvian guano, silicate of potash, nitrate of soda, and sulphate of ammonia. The sun was permitted to shine upon it for about half an hour, when the particles became as it were chrysalized upon the grain ; in this state it was sown at the rate of two and a half bushels to the acre, directly on the potato ground, from which the tops had been removed, and plowed under to the depth of five inches with a Scotch plow, harrowed once, a bushel of timothy seed sown to the acre and harrowed

twice; at the expiration of 15 days the wheat was so far above ground as to be pronounced by a neighbor far in advance of his, which had been sown in the usual way on the first of September, 34 days earlier.

The flour made from this wheat, which weighed nearly 65 lbs., received the first premium, a silver medal, at the last fair of the American Institute. The superiority of the flour was owing to the enormous amount of gluten it contained. Mr. P. read Dr. D. P. Gardener's analysis of the flour, which showed that it contained 18 per cent of gluten after having been dried by an air pump over sulphuric acid. His manures were applied for the purpose of producing gluten. It may be as well to say that a composition made by Mr. P. containing 30 different chemical substances, was spread broad cast over the whole field before the wheat came up, at an expense not exceeding three dollars. The yield per acre was somewhere about 70 bushels.—*N. Y. Commercial.*

Color of Soils.

Black soils are more productive than such as are light colored, when in other respects they are equally charged with the elements of vegetable nutrition. They rapidly absorb heat when exposed to the rays of the sun, and as rapidly cool when they are withdrawn.—Both of these effects are highly beneficial to vegetation. The heat which the soil acquires during the day, stimulates the action of the roots and growth of the plants; and the rapid cooling of the surface causes the dew with which the air is charged to be deposited early, and in quantities, during the evening. Some gardeners use white sand on the top of soils, "because," as they say, "it is so heating."—Had they a knowledge of some of the first principles of chemistry, they would at once see the absurdity of the practice. Were the sand black, or of a dark color, the practice would be commendable, as it would *conduct the rays to the roots of the plants*, which its white color reflects. The sand is highly useful when mixed with many soils, but is objectionable when placed on the surface. Pure sand is frequently hotter than dark earth in similar situations; but it is because it is *drier* and a non-conductor, and retains what heat is imparted to it, while the evaporation of the moisture and the *heat-conducting* properties of the dark soils, carry off the heat. A pure white or very light colored earth can never be fertile.—Very luxuriant vegetables are always dark colored when growing, and their color helps their growth in two ways—and for the same reason that dark soils do, viz: by conducting the heat into the plant while the sun is up, and again conducting it off when down, by which

there is a rapid and plentiful deposit of dew upon it.—*Cor. Am. Ag.*

EWES AND LAMBS.—A difficulty is sometimes experienced in making ewes own their lambs, and oftener, perhaps, when cases of twin lambs occur than at other times. Those who desire to rear all their lambs may find a benefit in sprinkling a little fine salt over the disowned ones. This will usually attract the mother, and when once the operation of licking has been performed, there is seldom any danger of desertion. A friend assures us, that he has practiced this method with decided success, and no injury to the lambs may be apprehended from the application. Sheep, when about to lamb, should be moved and disturbed as little as possible, as all such disturbances, especially with young or wild ewes, greatly increase the probability of their forsaking their young.—*Ayrshire Agriculturist.*

NEW WIND POWER.—A machinist at Cabotville Mass., has erected a shop at that place, the machinery of which is propelled by wind, in a somewhat novel manner. A large wheel, measuring 14 feet in diameter, furnished with wooden sails, or floats, is placed upon a perpendicular shaft, on each side of which, in a room below, is an invention similar to window shutters, which, when opened, causes the wind to rush in, and rising sets the sails and wheel in motion, and produces a velocity equal to that of any water wheel.—*Ex.*

VALUABLE RECIPE FOR WHITEWASH.—Take about a peck of unslacked lime, and slack it in hot water; add to this, while hot, about six pounds of lard, or any house grease; then put in about two pounds of glue, and if for nice inside painting a pound of Spanish whitening and a few handfuls of salt. Apply it on while hot. This recipe was obtained from Mr. John Noble, of the Dennison House, who has been very successful with this on his buildings. No rain or dampness has any effect to darken this whitewash at any time.—*West. Far. and Gar.*

TO MAKE GINGER BEER.—Bruised ginger, 2 ounces; water, 5 gallons. Boil for one hour, then add, when sufficiently cool, lump-sugar, 3½ pounds; cream of tartar, 1½ ounce; essence of lemon, 1 drachm; yeast, ½ pint. Strain, bottle, and wire down the corks.

2. Loaf-sugar, 1 pound; rasped ginger, 1 ounce; cream of tartar, ½ ounce; boiling water, 1 gallon. Mix and cover them up close for one hour, then add essence of lemon, 15 drops; yeast, 2 or 3 spoonfuls. Strain, bottle, and wire down the corks.

Plaster as Manure.

There are situations in which the application of plaster is of no utility. Such, for example, is that of farms in the vicinity of the sea;—such are soils which are already sufficiently supplied with it, or in which sulphur, in some of its combinations, already abounds, as in certain districts of New England where the soil is impregnated with copperas (sulphate of iron,) from the decomposition of rocks containing sulphur and iron. The benefits of plaster, moreover, are very limited upon wet argillaceous soils.

There are certain crops, also, on which the application of plaster is less useful than upon others; such are wheat, oats and barley. Upon analysis these crops are not found to contain a trace of gypsum.

If the weather at the time of sowing is dry, much effect will not be soon perceptible.

Soils to which gypsum has been applied for many years, and from which repeated crops have been taken, without any return of manures, will finally cease to be much benefitted by it, on account of the exhaustion of potash, and other necessary salts.

The soil on which plaster is most serviceable, is a dry, sandy or gravelly one, in which it is wanting. The crops on which its effects are greatest, are clover, Indian corn and turnips, and these crops yield it on analysis. The best time of application is in the spring, between showers in a season of rainy weather, or early on a dewy morning.

When the means of the farmer only enable him to procure a very limited portion of this article, it can be made to go farthest, by application to the seed. If, for example, clover seed be wet with rain water, and dried with plaster, it is found to vegetate with more vigor, and be less affected by drought. Plaster is also said to be more or less serviceable as a coating to the various kinds of grain and potatoes, used as seed.

Care should be used to procure plaster of a good quality. Much of that which has been introduced here from the state of New York, is said to be very impure,—the refuse of the quarries. Some of the instances of failure, which have been met with, in the application of this fertilizer, are probably owing to the inferior quality of the article used. The degree of whiteness is a good test of its purity. The Grand River plaster is pronounced by those who have tried it, to be of excellent quality.

FRUIT IN OTHER STATES.—We learn from an exchange that in Western New-York and Ohio, the past winter has been very destructive to the buds of peaches and other half-hardy fruits.

AYRSHIRE BULL.

THE subscriber finally offers his bull Sultan for the first time for sale. He was brought from the State of N. York, and is a noble animal, reputed to be of the Ayrshire breed, which differs in many points from most others. He possesses great length of body and hips, giving him extremely round quarters. Legs very short, head and limbs small, basket very prominent, deeply indented below the eyes, small round ears, a bright mahogany color all over. He is seven years old, and not a mammoth animal, but plenty large enough, as the true test is, the greatest amount of profit for labor, flesh, and the dairy, in proportion to what they consume, or their size. Specimens of his stock are to be seen on the premises of the subscriber. The heifers hardly need breaking, and, I believe, rank among the first for the dairy. Should there be any individuals or community of farmers wishing to improve their stock of cattle, they will be likely to meet with a better opportunity.

JOHN T. COMSTOCK.

Rollin, (Len. Co., on Bean Creek,) 4th mo., 9th, 1846.

Wilson's Corn Crusher Again

THE subscriber would hereby say to the public, that he is now prepared to furnish (on short notice,) those who wish with a portable mill, capable of grinding 30 bushels of ears of corn per hour, or grinding other coarse grain for feed, or shell corn, (with a rush,) rub out clover seed, &c., &c., called J. L. McKnight's patent Corn Crusher and Clover Rubbler.

The subscriber is also prepared to sell Town or County rights on liberal terms.

The machine works like a charm, and is applicable to horse, steam, or water power. One horse is sufficient to perform the necessary grinding for any farm or other establishment for home consumption, but more power is necessary to do custom work at a profit. The subscriber has now in operation in his shop at his Temperance House in Jackson, a two horse power, by which, with the force of one horse only, (at present,) he drives his machine.

The advantage of feeding corn and cob in this manner are now too well understood to need rehearsing. Suffice it to say, that, at the South, where they raise corn easily, where it is worth 10 cts per bushel, they think it an object to economize by grinding and feeding the cob, and that too, where they give from 1-4 to 1-3 for grinding, either for feed or distillation.

One, two or three competent salesmen wanted, to sell rights to said machine in this state and Ohio, also to sell rights in this state of Thompson's morticing machine,—the best now in use.

J. T. WILLSON.

Jackson, Feb. 25th, 1846.

CONTENTS OF THIS NUMBER.

The wheat crop ; Wheat crop of 1845 ; English corn laws ;	25
Killing Canada Thistles ; Selection of seed corn ; Directions	26
for budding ;	26
Saving fruit from frosts ; Wheat and Clover ; Rotation of	27
crops ;	27
Implements that every farmer wants ; Which are most prof-	28
itable, sheep or cows ?	28
Melons and their malady ; Sowing clover seed ; Directions	29
for the Spring management of sheep ;	29
Failure of the wheat crop in the Eastern States ;	30
Calender for May ;	31
Raising cabbages ; Madder—its cultivation : Butter making ;	32
New importation of cattle ;	33
Effects of crossing on the constitution ; Marl, composts &c.	34
—inquiries ;	34
Management of timbered lands ;	35
Rust in wheat ; Breaking up ;	36
Cooking Asparagus ; Locusts favorable to grass ; Curing clo-	37
ver ; Wedding cake ;	37
How to get rid of fruit trees ; Extraordinary experiment with	38
wheat ;	38
Color of soils ; Ewes and lambs ; New wind power ; Re-	39
cipe for whitewash ; To make ginger beer ;	39

MICHIGAN FARMER.**TERMS FOR VOL. IV.**

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ADVERTISEMENTS

Of agricultural implements, farms for sale, &c., would be inserted on our last page at \$1.75 per folio, for 3 months, or 75 cents for the first insertion, and 50 cents for each continuance. As the circulation of the Farmer is now probably greater than that of any other paper in the state, and as the number of advertisements is very limited, it is evidently a highly advantageous medium for advertising.